VAIS TECHNOLOGY

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Quick Start

MultiMediaLinQ

Model :VML

Automotive Audio Player
with USB 2.0 Host
and optional HDD

Now
with iPod USB Audio and Controls

TOYOTA • LEXUS • SCION

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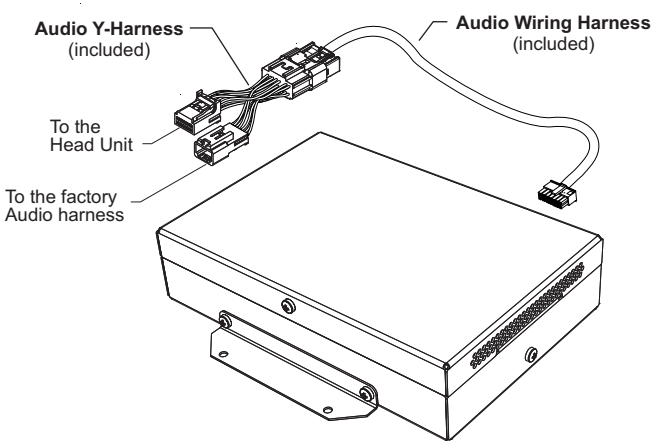
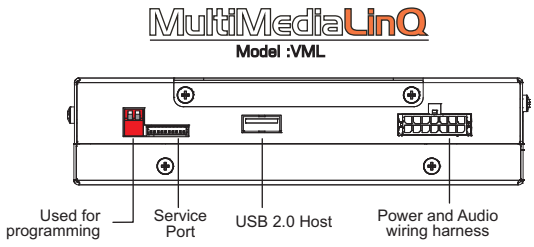
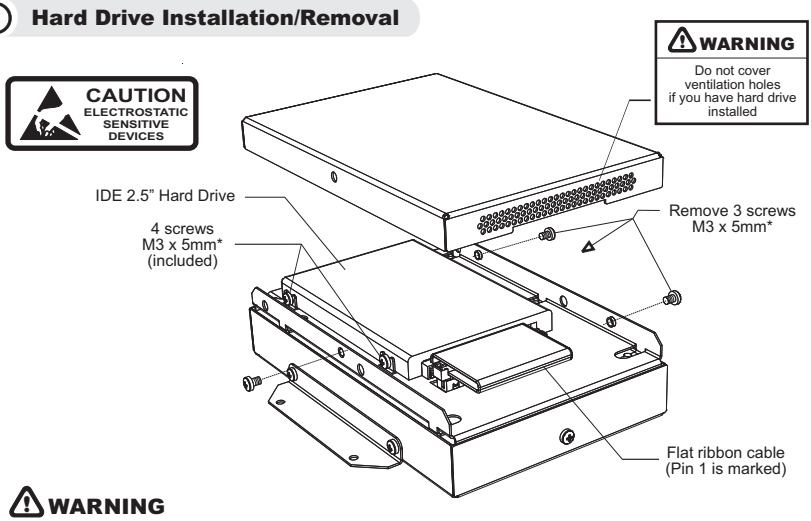
Published July 27, 2008

Connecting MultiMediaLinQ





Hard Drive Installation/Removal



WARNING

- Hard Drive is unformatted by default. Please make sure to format your newly received hard drive as FAT32.
- We also recommend to set up your hard drive with one of the scenarios, listed in this guide, prior installing it into the VML player.

IMPORTANT

We strongly recommend that you install the unit in an easily accessible location, so you can later upgrade the unit or re-program it in case of incorrect programming.

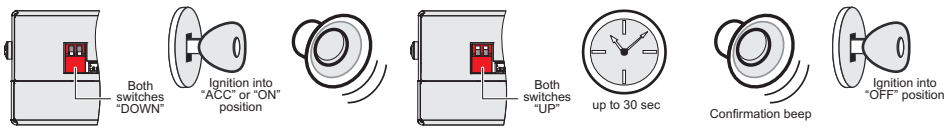
Installation

- Gain access to the back of you vehicle's Head Unit.
- Find the same port as our Audio Harness (see *"Connecting MultiMediaLinQ to head unit"*)
- Disconnect the existing connector and plug in our Audio connector into this port, then plug female end of Audio Harness to the plug in for your factory connector. Audio harness female connector is not used In some vehicles.
- Plug the other end of Audio cable into designated port on MultiMediaLinQ.
- Setup proper Emulation Mode for this unit (see *"Emulation Mode Selection"*)
- Turn the car on and check MultiMediaLinQ functionality (especially Text capability) before the final assembly.
- Make sure your USB Storage device has at least two Folders/playlists, in order for this unit to operate properly.
- Please mount this unit in an easy accessible location for upgrading and re-programming purposes.
- Secure the Head Unit in its original position.

Emulation Mode Selection

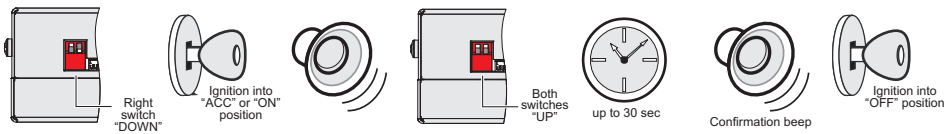
MD Changer Emulation Mode programming steps:

- Properly install VML player.
- Put both programming switches in "DOWN" position.
- Put ignition switch into the "ACC" position.
- Wait for a long beep followed by a few short beeps. This may take up to one minute.
- Return programming switches to their default position (both switches "UP").
  Wait up to 30 seconds for a confirmation beep.
- Put ignition switch into the "OFF" position.
- Wait at least 10 seconds.
- Put ignition switch into the "ACC" or "ON" position.
- Check MultiMediaLinQ for functionality, especially TEXT capabilities.



CD Changer Emulation Mode programming steps:

- Properly install VML player.
- Put "Right" programming switch in the "DOWN" position.
- Put ignition switch into the "ACC" position.
- Wait for a long beep followed by a few short beeps. This may take up to one minute.
- Return programming switches to their default position (both switches "UP").
  Wait up to 30 seconds for a confirmation beep.
- Put ignition switch into the"OFF" position.
- Wait at least 10 seconds.
- Put ignition switch into the "ACC" or "ON" position.
- Check MultiMediaLinQ for functionality, especially TEXT capabilities.



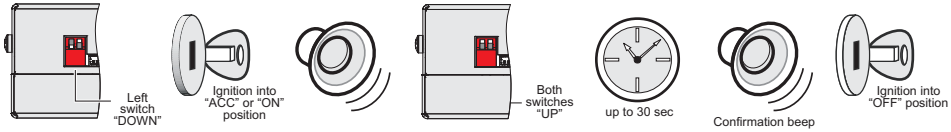
IMPORTANT

- Improper Emulation Mode setting may cause this unit to be unrecognized by the head unit.
- CD or MD Changer Emulation Mode Programming MUST BE DONE in order for the unit to find the proper address location in the vehicle Audio/Video network.

CD-MP3 Emulation Mode Selection (CD-MP3 emulation)

CD-MP3 Emulation Mode programming steps:

- Properly install VML player.
- Put the “Left” programming switch in the “DOWN” position.
- Put ignition switch into the “ACC” position.
- Wait for a long beep followed by a few short beeps. This may take up to one minute.
- Return programming switches to their default position (both switches “UP”). Wait up to 30 seconds until confirmation beep.
- Put ignition switch into the “OFF” position.
- Wait at least 10 seconds.
- Put ignition switch into “ACC” or “ON” position.
- Check SoundLinQ for functionality, especially TEXT capabilities.



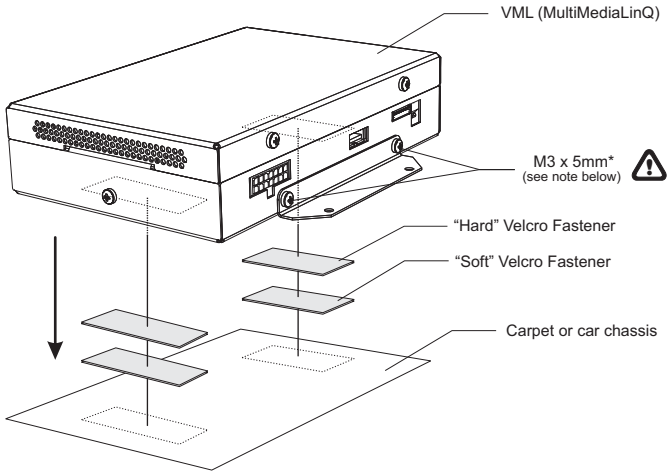
IMPORTANT

- Improper Emulation Mode setting may cause this unit to be unrecognized by the head unit.
- CD-MP3 Changer Emulation Mode Programming MUST BE DONE in order for the unit to find the proper address location in the vehicle Audio/Video network.

Mounting unit using Velcro fasteners

WARNING

- Velcro Fasteners are not included
- VAIS Technology strongly recommends grounding the unit to the car chassis for best results.
- Do not use any screws longer than 5mm. Using screws larger then 5mm may damage the PCB board.

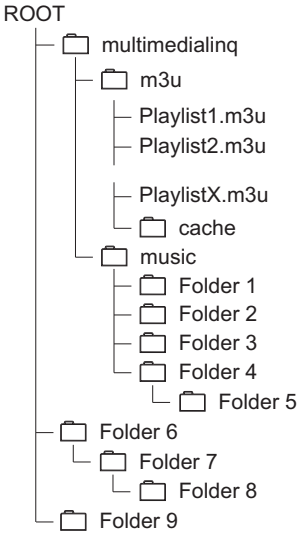


We strongly recommend to Ground VML to the vehicle’s chassis

Media Files location

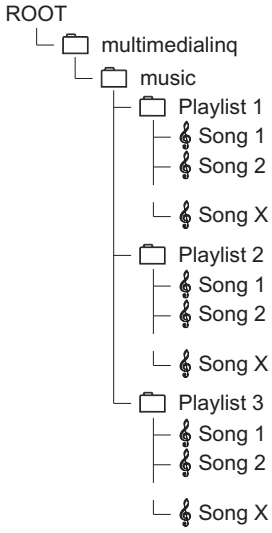
SCENARIO 1
"M3U playlists files"

PRIORITY 1



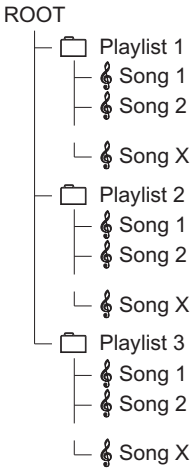
SCENARIO 2
"MultiMediaLinQ Music Folder"

PRIORITY 2



SCENARIO 3
"ROOT Music Folders"

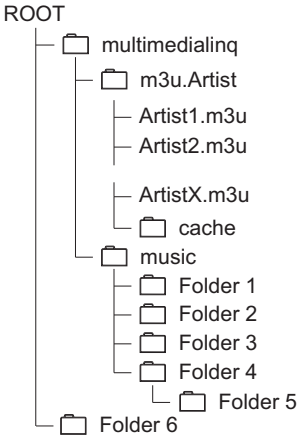
PRIORITY 3



- VAIS Technology recommends setting up files on your mass storage device according to one of the three scenarios listed below.
- Depending on complexity of your files setup and your needs please choose one of the scenarios below to utilize VML player. For more detailed information about scenarios please refer to the "Owner's Manual" manual.

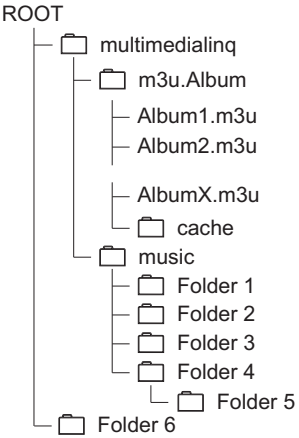
SCENARIO 1 "ARTIST"
"M3U Artist files"

PRIORITY 1



SCENARIO 1 "ALBUM"
"M3U Album files"

PRIORITY 1



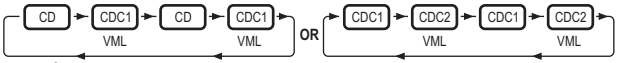
CD-MP3 Changer Emulation

Source Selection

Select desired source by pressing the **DISC** button on the head unit or **MODE** on the steering wheel control.

Head Unit:

To switch between the unit sources you need to use **"DISC"** or **"CD"** button on the radio
(Diagram below assumes factory CD changer is present).



Steering Wheel control:

To switch between the unit and radio you need to use the "MODE" button on the steering wheel control.
(Diagram below assumes following sources are present).

Functionality Description

Control of VML player is done through your head unit or the steering wheel controls (explained below).

This unit can be programmed in CD changer emulation mode , MD changer emulation mode and CD-MP3 Emulation.
Please see attached chart to determine which emulation mode is compatible with your vehicle.

CD-MP3 changer emulation

For Radio Integrated into Navigation System (5th Generation Navigation System)

List Of Folders (Playlists)

List Of Files (List of songs in selected Playlist)

This functionality is available for all 5th Gen Navigation system.
Please note all Toyota vehicles, except for Prius, do not have a list of files and folders display available on the screen due to Radio limitation.

Please also see "Activate / Deactivate 'Disc Switching Fix' Function"

How to Eject a USB device?

Simply push the "SCAN" button twice in one second and then immediately push the "PWR" button on your radio. On some radios the "PWR" button is combined with "VOL" knob.

Message "Ejecting USB. Please wait" is displayed to confirm you can safely remove the USB device. Do not remove USB storage while the device is being accessed, as it may result in loss of data.

When Accessory of your vehicle is turned OFF, the USB device will be automatically disconnected (unmounted).

NOTE

Never remove USB memory or USB Audio Player device while playback or file transfer is in progress, to prevent possible damage to its memory. VAIS Technology is not responsible for any lost or damaged data on storage media.

CD-MP3 Changer Emulation

TRACK+ and **TRACK-**

Select the desired track
(Maximum number of tracks is 999 for CD-MP3 changer Emulation mode).
You can fast switch through tracks by repeatedly pressing the [TRACK+] / [TRACK-] button.
The track will change after a brief pause when you stop pressing the button.
NOTE: If a playlist only contains one track, the [TRACK+] / [TRACK-] buttons will not function.

FOLDER+ and **FOLDER-**

Select the desired playlist (Maximum number of playlists is 999).
You can fast switch through playlists by repeatedly pressing the [FOLDER+] / [FOLDER-] button.
The new playlist will start after a brief pause when you stop pressing the button.
NOTE: If there are no songs in a playlist the unit will jump to the next playlist.

FOLDER SCAN

Press and hold the RPT button to activate/disactivate playlist +50 mode. if "FOLDER SCAN" function are active use [FOLDER+] and [FOLDER-] as "Folder +50" and "Folder -50" to select the desired playlist

SCROLL UP and **SCROLL DOWN**

Fast Forward/Rewind the song

NOTE: For vehicle not equipped with [DISC+] and [DISC-] buttons, if "SCAN" function is active use [SCROLL UP] and [SCROLL DOWN] as [DISC+] and [DISC-] to select the desired playlist (in this case [DISC+] and [DISC-] will work as a [FOLDER+] and [FOLDER-])

RPT

Activates "Repeat One" function

FOLDER RPT

Press and hold the RPT button to activate playlist repeat. This mode will cause the current playlist to start over with the first track after the last track has been played, instead of moving on to the next playlist.
NOTE: Repeats all songs in active playlist.

RAND

The RAND button activates the playlist randomizer function. All tracks in the current playlist will be placed into a new, random order. The currently selected track will be renumbered to Track 1, and all subsequent tracks will be random selections from the playlist. After activating the playlist randomizer, the displayed track number does not map to the physical track number in the playlist, but rather to the new, randomized order.
NOTE: Shuffles all songs in the active playlist. VML player starts playing songs from your entire playlist in random order.

FOLDER LIST

The FOLDER button will bring up a new display that allows you to scroll through the playlists and tracks on your VML player. [Folder Up] or [Folder Down] will scroll through playlists, while [File Up] or [File Down] will scroll through tracks.
If a playlist contains a large number of songs, it may take some time for the data to be transferred to the head unit. This can cause the scroll buttons to become unresponsive during rapid scrolling, until data has been loaded from the VML player.
NOTE: Some vehicles' head units do not support the Folder/File display function. In this case when you press FOLDER you will see a blank display in the Folder and File lists.

DETAIL

Pressing the DETAIL button will bring up details on the current track. It will display Album Title, Track Title, and Artist. Genre is not supported and will always be blank.
NOTE: You can switch tracks while in DETAIL view, but it will not display the current track number.

CD-MP3 Changer Emulation

Category (Playlist, Artist, Album) Selection

FLD. RAND + FOLDER+ and FOLDER- OR FLD. RAND + DISC+ and DISC-

Select the desired browsing category Playlist, Artist or Album ().

NOTE: If selected browsing category has playable files/songs in it, VML will start playing selected category. Otherwise VML will look for next available category. If no category is available to be selected, VML will continue to play current song.

NOTE: If any functions such as “REPEAT”, “FOLDER REPEAT”, “SCAN”, “FOLDER SCAN” or “RANDOM” (if this function does not use the same button as a “FOLDER RANDOM”) were active before you select “FOLDER RANDOM” VML will remember status of all these buttons, deactivate all of them for the time when “FOLDER RANDOM” is active. After “FOLDER RANDOM” is deactivated, all these functions will be restored automatically.

NOTE: For your convenience VML will automatically deactivate “FOLDER RANDOM” 15 seconds after you make selection for desired category. You can make selection for next available category during this 15 seconds and timeout timer will be reset to new 15 seconds.

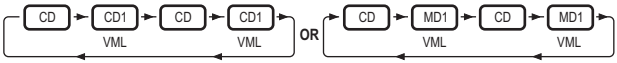
CD/MD Changer Emulation

Source Selection

Select desired source by pressing **DISC** button on the head unit or **MODE** on the steering wheel control.

Head Unit:

To switch between the unit sources you need to use **"DISC"** or **"CD"** button on the radio (Diagram below assumes factory CD changer is present).



Steering Wheel control:

To switch between the unit and radio you need to use the "MODE" button on the steering wheel control. (Diagram below assumes following sources are present).

Functionality Description

Control of VML player is done through your head unit or the steering wheel controls (explained below).

This unit can be programmed in CD changer emulation mode , MD changer emulation mode and CD-MP3 Emulation. Please see attached chart to determine which emulation mode is compatible with your vehicle.

MD changer emulation

For Radio Receiver with LCD

CD changer emulation

For Radio Receiver with LCD

CD changer emulation

For Radio Integrated into Navigation System

VML
(Radio Integrated into Navigation System)
CD-Text support

For Radio Integrated into Navigation System

VML (Radio Integrated into Navigation System)
Direct Playlist selection
MAY NOT look/operate or be available on different year and model

Song Title, Artist Name or Album Name (see "DISC SCAN" function)

Playlist Title

How to Eject a USB device?

Simply push the "SCAN" button twice in one second and then immediately push the "PWR" button on your radio. On some radios the "PWR" button is combined with "VOL" knob.

Do not remove USB storage while the device is being accessed, as it may result in loss of data.

When Accessory of your vehicle is turned OFF, the USB device will be automatically disconnected (unmounted).

NOTE

Never remove USB memory or USB Audio Player device while playback or file transfer is in progress, to prevent possible damage to its memory. VAIS Technology is not responsible for any lost or damaged data on storage media.

CD/MD Changer Emulation

TRACK+ and **TRACK-**

Select the desired track
(Maximum number of tracks is 999 for CD changer and MD changer Emulation mode).
You can fast switch through tracks by repeatedly pressing the [TRACK+] / [TRACK-] button.
The track will change after a brief pause when you stop pressing the button.

NOTE: If a playlist only contains one track, the [TRACK+] / [TRACK-] buttons will not function.

NOTE: Due to the radio limitation in CD changer emulation VML will only displays two digits of the track number. Track 100, 200, 300 .. 900 will be displayed as track "90", but text display for the track will contains "1^", "2^", "3^" ... "9^" for corresponding track "hundreds" at the beginning of the track title.

DISC+ and **DISC-**

Select the desired playlist (Maximum number of playlists is 99).

NOTE: Will be changed to 999 in the future Firmware.

You can fast switch through playlists by repeatedly pressing the [DISC+] / [DISC-] button.
The new playlist will start after a brief pause when you stop pressing the button.

NOTE: If there are no songs in a playlist the unit will jump to the next playlist.

SCROLL UP and **SCROLL DOWN**

Fast Forward/Rewind the song

DISC SCAN + **SCROLL UP** and **SCROLL DOWN**

NOTE: For vehicle not equipped with [DISC+] and [DISC-] buttons, if "DISC SCAN" function is active use [SCROLL UP] and [SCROLL DOWN] as [DISC+] and [DISC-] to select the desired playlist.

SCAN + **SCROLL UP** and **SCROLL DOWN**

NOTE: if " SCAN" function is active use [SCROLL UP] and [SCROLL DOWN] as "TRACK +10" and "TRACK -10" to select the desired song

RPT

Activates "Repeat One" function

DISC RPT

Activates "Repeat All" function.

NOTE: Repeats all songs in active playlist.

RAND

The RAND button activates the playlist randomizer function. All tracks in the current playlist will be placed into a new, random order. The currently selected track will be renumbered to Track 1, and all subsequent tracks will be random selections from the playlist. After activating the playlist randomizer, the displayed track number does not map to the physical track number in the playlist, but rather to the new, randomized order.

NOTE: Shuffles all songs in the active playlist. VML player starts playing songs from your entire playlist in random order.

DISC RAND + **RPT**

If "DISC RANDOM" function is active use "REPEAT" button to select the desired track title mode. You can choose between Song Title, Artist Name, or Album Name.

NOTE: If any functions such as "REPEAT", "DISC REPEAT", "SCAN", "DISC SCAN" or "RANDOM" (if this function does not use the same button as a "DISC RANDOM") were active before you select "DISC RANDOM" VML will remember status of all these buttons, deactivate all of them for the time when "DISC RANDOM" is active. After "DISC RANDOM" is deactivated, all these functions will be restored automatically.

NOTE: Track Title information can ONLY be displayed on Radio LCD or Navigation screen that support CD or MD changers with CD-Text or MD-Text.

CD/MD Changer Emulation

Category (Playlist, Artist, Album) Selection

DISC RAND + DISC+ and DISC-

Select the desired browsing category Playlist, Artist or Album.

NOTE: If selected browsing category has playable files/songs in it, VML will start playing selected category. Otherwise VML will look for next available category. If no category is available to be selected, VML will continue to play current song.

NOTE: If any functions such as “REPEAT”, “DISC REPEAT”, “SCAN”, “DISC SCAN” or “RANDOM” (if this function does not use the same button as a “DISC RANDOM”) were active before you select “DISC RANDOM” VML will remember status of all these buttons, deactivate all of them for the time when “DISC RANDOM” is active. After “DISC RANDOM” is deactivated, all these functions will be restored automatically.

NOTE: For your convenience VML will automatically deactivate “DISC RANDOM” 15 seconds after you make selection for desired category. You can make selection for next available category during this 15 seconds and timeout timer will be reset to new 15 seconds.

Disc “Partition” Selection

DISC RAND SCAN + SCROLL UP and SCROLL DOWN

NOTE: if “DISC RAND” and “ SCAN” function are active use [SCROLL UP] and [SCROLL DOWN] to select desired DISC partition if available.

NOTE: For your convenience VML will automatically deactivate “DISC RANDOM” 15 seconds after you make selection for desired disc partition. You can make selection for next available disc partition during this 15 seconds and timeout timer will be reset to new 15 seconds.

IMPORTANT

The VML Audio Player supports playback of MP3 and WAV files from a USB Mass Storage Device or optional automotive grade internal Hard Drive (see details below).

What is MP3?

MP3 (MPEG-1 Audio Layer 3) is a digital audio encoding format using a form of lossy data compression.
"MPEG Layer 3 audio coding technology licensed from Fraunhofer IIS and Thomson."

"Supply of this product only conveys a license for private, non-commercial use and does not convey a license nor imply any right to use this product in any commercial (i.e. revenue-generating) real time broadcasting (terrestrial, satellite, cable and/or any other media), broadcasting/streaming via internet, intranets and/or other networks or in other electronic content distribution systems, such as pay-audio or audio-on-demand applications. An independent license for such use is required. For details,please visit http://www.mp3licensing.com."

Audio Format Compatibility

MP3

- Bit rate: 8 kbps to 320 kbps
- Sampling frequency: 16 kHz to 48 kHz
- Compatible ID3 tag version: 1.0, 1.1, 2.2, 2.3, 2.4 (ID3 tag Version 2.x is given priority over Version 1.x.)
- M3u playlist: Supported
- MP3 PRO: Not supported

WAV

- Compatible format: Linear PCM (LPCM)
- Quantization bits: 8, 16, 24 and 32 (LPCM)
- Sampling frequency: 16 kHz to 48 kHz (LPCM)

USB Memory/Portable Audio Player Handling

- This unit can playback files in USB memory and USB Portable Audio Players that support the USB Mass Storage Class (MSC) protocol.
- You cannot connect a USB memory or USB Portable Audio Player to this unit via a USB hub (unless otherwise specified).
- Partitioned USB memory is compatible with this unit.(Can not be managed by Windows XP and Windows Vista).
- USB memory or USB Portable Audio Player must be formatted as FAT16 or FAT32.
- Unit can playback up to 999[1] playlists and up to 999 files in each playlist (per partition). Large amount of playlists and files can result in slow navigation and playback.
- You must maintain "Free Space" on USB memory or USB Portable Audio Player necessary for unit operation (approximately 1% of partition capacity).

Internal Hard Drive Handling

- This unit can playback files from the optional internal IDE Hard Disc Drive (HDD).
- HDD playback functionality requires additional activation.
- HDD playback functionality will be automatically de-activated after 5 failed attempts to recognize HDD.
- Unit can recognize up to 4 Primary Partitions accessible as separate Discs.
- HDD must be formatted as FAT16 or FAT32.
- Unit can playback up to 999[1] playlists and up to 999 files in each playlist (per partition). Large amount of playlists and files can result in slow navigation and playback.
- You must maintain "Free Space" on HDD necessary for unit operation (approximately 1% of partition capacity).

IMPORTANT

- To prevent the accidental loss of data, we are strongly recommend always backing up important data on your computer.
- VAIS Technology accepts no responsibility for any loss of data on USB memory/USB Portable Audio Player and/or HDD, even if data is lost while using this unit.
- This unit does not support connections to a computer.

[1] - VML can playback up to 999 playlists in CD-MP3 emulation mode and up to 99 playlist in CD changer or MD changer emulation mode.